Attorney Docket No. 990055

IN THE CLAIMS

Please amend the claims as indicated below.

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Presently Amended) ~~The method of Claim 4 wherein the step of determining the current state of the stream cipher at the base station is accomplished by:~~ A method for synchronizing a stream cipher, comprising:

transmitting at least a cycle number indicating a current state of the stream cipher at a transmission source;

at a reception site, using a first array of numbers and the cycle number to determine a second array of numbers; and

using the second array of numbers and a first set of numbers to determine the current state of the stream cipher ~~at the base station~~.

6. (Original) The method of Claim 5, wherein the second array of numbers is determined by performing a series of multiplication operations of the first array of numbers with itself, wherein the number of multiplication operations is determined by the cycle number.

7. (Original) The method of Claim 5, wherein the second array of numbers is pre-calculated and is stored by the first recipient before the step of transmitting the control set of numbers.

8. (Presently Amended) The method of Claim [[2]] 5, wherein ~~the step of~~ transmitting at least the ~~control set of numbers~~ cycle number comprises:

transmitting an encrypted data stream from a first source to a plurality of recipients, wherein the encrypted data stream is encrypted using the stream cipher;

transmitting a plurality of cycle numbers from the first source to the plurality of recipients; and

determining the current state of the stream cipher by using the plurality of cycle numbers by each of the plurality of recipients, wherein each of the plurality of recipients uses one of the plurality of cycle numbers.

9. (Original) The method of Claim 8 wherein each of the plurality of recipients determines a different current state of the stream cipher.

10. (Original) The method of Claim 8 wherein the step of determining the current state of the stream cipher is accomplished by the formula:

$$s_{n+k} = c_{k-1}s_{n+k-1} + c_{k-2}s_{n+k-2} + \ldots + c_1 s_{n+1} + c_0 s_n$$

wherein k is the size of a linear shift register, n is the cycle number, s_i is an element stored in a linear shift register with $n \leq i \leq n+k-1$, and c_j is a constant with $0 \leq j \leq k-1$.

11. (Cancelled)

12. (Presently Amended) The method of Claim [[11]] 5 wherein the second array of numbers is determined by performing a series of multiplication operations of the first array of numbers with itself, wherein the number of multiplication operations is determined by the cycle number.

13. (Presently Amended) The method of Claim [[11]] 5, wherein the second array of numbers is pre-calculated and is stored by the first recipient before the step of transmitting the control set of numbers.

14. (Presently Amended) The method of Claim [[2]] 5, ~~wherein the control set of numbers comprises~~ further comprising transmitting a stutter number indicative of the current state of the stream cipher at the transmission source.

15. (Presently Amended) The method of Claim 14, wherein ~~the step of~~ transmitting the ~~control set of numbers~~ stutter number comprises ~~the step of~~ transmitting from a mobile station to a base station.

16. (Presently Amended) The method of Claim 14 wherein ~~the step of~~ determining the current state of the stream cipher is accomplished by the formula:

$$s_{n+k} = c_{k-1}s_{n+k-1} + c_{k-2}s_{n+k-2} + \ldots + c_1 s_{n+1} + c_0 s_n$$

wherein k is the size of a linear shift register, n is the cycle number, s_i is an element stored in a linear shift register with $n \leq i \leq n+k-1$, and c_j is a constant with $0 \leq j \leq k-1$.

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Presently Amended) ~~The method of Claim 27, wherein the current state of the first stream cipher is further generated by a stuttering process, the method comprising:~~ A method for synchronizing a first stream cipher generated at a transmission source and a second stream cipher generated at a reception site, wherein the first stream cipher and the second stream cipher are generated by a common recurrence relation, the method comprising:

determining an offset of a current state of the first stream cipher from an initial state;

determining types of stutter control variables associated with the current state of the first stream cipher and the number of instances each of the stutter control variable types were used to generate the current state of the first stream cipher; and

transmitting the number of instances each of the stutter control variables types were used to generate the current state of the first stream cipher and the offset of the current state of the first stream cipher to the reception site, whereupon the reception site also uses number of instances and the offset to calculate ~~the~~ a new current state of the second stream cipher.

29. (Cancelled)

30. (Presently Amended) ~~The apparatus of Claim 29,~~ An apparatus for synchronizing a first stream cipher generated at a transmission source and a second stream cipher generated at a reception site, wherein the first stream cipher and the second stream cipher are generated by a common recurrence relation, comprising:

a linear feedback shift register configured to output the first stream cipher;

a processor for manipulating the contents of the linear feedback shift register ~~wherein the processor is further configured to implement~~ and for implementing a stuttering process upon the output of the linear feedback shift register; and

a controller communicatively coupled to the processor, the controller for:

determining an offset of a current state of the first stream cipher from an initial state, wherein the offset is for transmission to the reception site, whereupon the reception site uses the offset to calculate a new current state of the second stream cipher;

determining ~~and the controller is further configured to determine:~~ the types of stutter control variables associated with the current state of the first stream cipher; and

determining the number of instances each of the stutter control variable types were used to generate the current state of the first stream cipher